

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (currently amended) A communications network, ~~adapted~~ for use with mobile wireless user terminals, said network comprising:

a packet-switched core network; ~~and~~

a plurality of access points within a same broadcast network and coupled to said core network, each said access point ~~being adapted to provide~~ providing any said user terminal with communications access to said core network when said any user terminal becomes affiliated with said access point, and including an address resolution protocol cache ~~which is adapted to store~~ for storing information representative of affiliation between said user terminals and said access points, and each said access point ~~being adapted to update~~ including means for updating its address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and further including means for issuing ~~being further adapted to issue~~ an address resolution protocol request which causes other said access points to update their respective address resolution protocol cache to indicate that a said user terminal has changed its affiliation to said access point; ~~and~~

at least one of a media server, DNS server and an IP gateway router, each including a respective an address resolution protocol cache for storing information representative of affiliation between said user terminals and said access points and is updateable based on said address resolution protocol request.

2. (currently amended) A communications network as claimed in claim 1, wherein:
said each access point ~~is adapted to~~ issues said address resolution protocol request over
said core network.

3. (Canceled)

4. (Canceled)

5. (currently amended) A communications network as claimed in claim 1, wherein:
said access point with which a said user terminal is affiliated includes a wireless
transceiver for ~~is adapted to~~ transmitting a received data packet to said user terminal via a
wireless communications link.

6. (currently amended) A communications network as claimed in claim 1, wherein:
each said access point includes a wireless transceiver, ~~adapted to~~ for transmitting and
~~receive~~ receiving data packets to and from a said user terminal affiliated therewith via a wireless
communications link.

Claims 7-11 (Canceled)

10. (currently amended) A communications network as claimed in claim 1, wherein:
each said access point ~~is adapted to~~ provides any said user terminal with communications access to said core network when said user terminal is participating in an ad-hoc network.

11. (currently amended) An access point, coupled to a communications network ~~and being adapted to provide for~~ providing mobile wireless user terminals with communications access said network, said access point comprising:

a wireless transceiver, ~~adapted to~~ for transmitting and receive receiving data packets to and from a said wireless user terminal affiliated with said access point; when said user terminal is participating in an ad-hoc network;

an address resolution protocol cache, ~~adapted to store~~ for storing information representative of affiliation between said user terminals and said access points; and

an affiliation indicator, ~~adapted to update~~ for updating the address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and ~~being further adapted to issue~~ for issuing an address resolution protocol request which causes other access points within a same broadcast network and coupled to said communications network to update their respective address resolution protocol cache to indicate that said user terminal has changed its affiliation from said another access point to said access point.

Claims 12-16 (Canceled)

17. (currently amended) A method of handling mobility of wireless user terminals ~~adapted~~ for use with a communications network including a packet-switched core network and a plurality of access points coupled to said core network, said method comprising:

provide a said user terminal with communications access to said core network via said access point when said user terminal becomes affiliated with said access point;

storing information representative of affiliation between said user terminals and said access points in a respective address resolution protocol cache of each said access point;

controlling said access point to update its address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and to issue an address resolution protocol request to indicate to the other said access points that said user terminal has changed its affiliation from said another said access point to said access point; ~~and~~

updating respective said address resolution protocol caches of the other said access points within a same broadcast network based on said address resolution protocol request to indicate said change in affiliation of said user terminal; and

updating respective address resolution protocol caches of at least one of a media server, DNS server and an IP gateway router of said network based on said address resolution protocol request.

18. (previously presented) A method as claimed in claim 17, wherein:

said controlling step controls said access point to issue said address resolution protocol request over said core network.

19. (Canceled)

20. (Canceled)

21. (Original) A method as claimed in claim 17, further comprising:

controlling said access point with which a said user terminal is affiliated to transmit a received data packet to said user terminal via a wireless communications link.

Claims 22-24 (Canceled)

25. (Original) A method as claimed in claim 17, wherein:

said providing step includes providing said user terminal with communications access to said core network when said user terminal is participating in an ad-hoc network.

26. (currently amended) A method for providing mobile wireless user terminals with communications access to a packet-switched network, said method comprising:

controlling an access point on said packet-switched network to transmit and receive data packets to and from a said wireless user terminal affiliated with said access point when said user terminal is participating in an ad-hoc network;

controlling said access point to store information representative of affiliation between said user terminals and access points on said packet-switched network in an address resolution cache of said access point;

controlling said access point to update its address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and to issue an address resolution protocol request to indicate to other said access points within a same broadcast network and coupled to said packet-switched network indicating that said user terminal has changed its affiliation from said another access point to said access point; and

controlling said other access points to update their respective address resolution protocol cache based on said address resolution protocol request.

27. (previously presented) A method as claimed in claim 26, wherein:

said third controlling step controls said access point to issue said address resolution protocol request over said packet-switched network.

Claims 28-31 (Canceled)

32. (currently amended) A computer-readable medium of instructions, ~~adapted to for~~ controlling access points of a communications network including a packet-switched core network to handle mobility of wireless user terminals ~~adapted~~ for use with said communications network, said computer-readable medium of instructions comprising:

a first set of instructions, ~~adapted to for~~ controlling a said access point to provide a said user terminal with communications access to said core network via said access point when said user terminal becomes affiliated with said access point;

a second set of instructions, ~~adapted to for~~ controlling each of said access points to store information representative of affiliation between said user terminals and said access points in their respective address resolution cache;

a third set of instructions, ~~adapted to for~~ controlling said access point to update its address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and to issue an address resolution protocol request to indicate to the other said access points within a same broadcast network that said user terminal has changed its affiliation from another said access point to said access point; ~~and~~

a fourth set of instructions, ~~adapted to update~~ for updating respective said address resolution protocol caches of the other said access points based on said address resolution protocol request to indicate said change in affiliation of said user terminal; and

a fifth set of instructions for controlling at least one of a media server, DNS server and an IP gateway router of said network to update its respective address resolution protocol cache of based on said address resolution protocol request.

33. (currently amended) A computer-readable medium of instructions as claimed in claim 32, wherein:

said second set of instructions ~~is adapted to~~ controls said access point to issue said address resolution protocol request over said core network.

34. (Canceled)

35. (Canceled)

36. (currently amended) A computer-readable medium of instructions as claimed in claim 32, further comprising:

a ~~fifth~~ sixth set of instructions, ~~adapted to~~ for controlling said access point with which a said user terminal is affiliated to transmit a received data packet to said user terminal via a wireless communications link.

Claims 37-39 (Canceled)

40. (currently amended) A computer-readable medium of instructions as claimed in claim 32, wherein:

said first set of instructions ~~is adapted to~~ controls said access point to provide said user terminal with communications access to said core network when said user terminal is participating in an ad-hoc network.

41. (currently amended) A computer-readable medium of instructions for controlling an access point of a packet-switched network to ~~providing~~ provide mobile wireless user terminals with communications access to said packet-switched network, said computer-readable medium of instructions comprising:

a first set of instructions, ~~adapted to~~ for controlling a said access point on said packet-switched network to transmit and receive data packets to and from a said wireless user terminal affiliated with said access point when said user terminal is participating in an ad-hoc network;

a second set of instructions, ~~adapted to~~ for controlling said access point to store information representative of affiliation between said user terminals and access points on said packet-switched network in an address resolution protocol cache of said access point;

a third set of instructions, ~~adapted to~~ for controlling said access point to update its address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and to issue an address resolution protocol request to indicate to other said access points within a same broadcast network and coupled to said packet-switched network that said user terminal has changed its affiliation from another access point to said access point; and

a fourth set of instructions, ~~adapted to~~ for controlling said other access points to update their respective address resolution cache based on said address resolution protocol request.

42. (currently amended) A computer-readable medium of instructions as claimed in claim 41, wherein:

said third set of instructions ~~is adapted to~~ controls said access point to issue said address resolution protocol request over said packet-switched network.

Claims 43-46 Canceled)